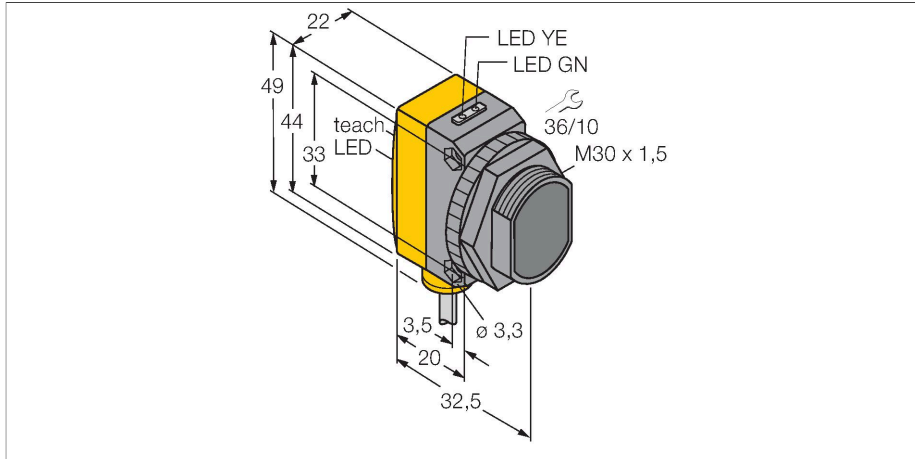


QS30LDL

Photoelectric Sensor – Diffuse Mode Sensor



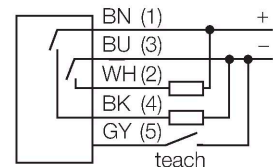
Technical data

Type	QS30LDL
ID	3002785
Optical data	
Function	Proximity switch
Operating mode	Diffuse
Light type	Red
Wavelength	658 nm
Laser class	▲ 2
Beam diameter	2 mm
Range	0...800 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 150 mA
No-load current	≤ 35 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 1000 Hz
Readiness delay	≤ 1 s
Readiness delay	≤ 1000 ms
Response time typical	< 0.5 ms
Setting option	Push Button Remote Teach
Mechanical data	
Design	Rectangular with thread, QS30
Dimensions	Ø 30 x 35 x 22 x 49 mm

Features

- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Teach button
- 8-segment bargraph
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

Wiring diagram



Functional principle

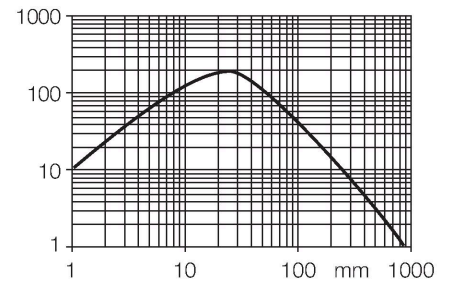
The emitter and receiver are incorporated in the same housing. The light reflection of the target is detected and causes the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

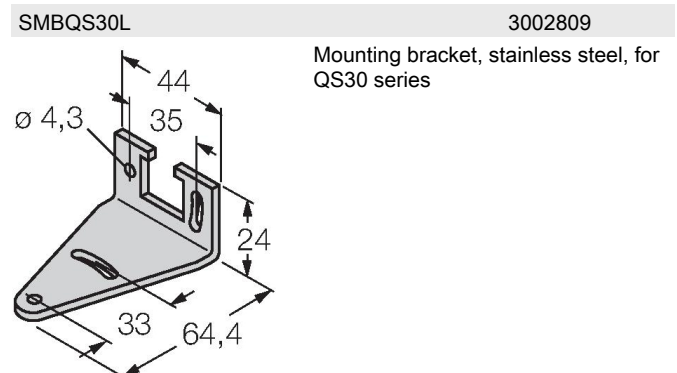
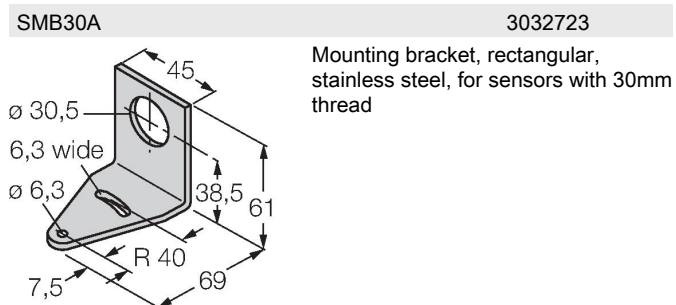
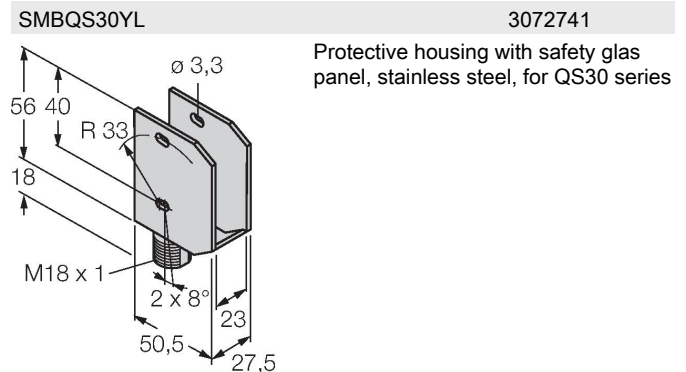
Excess gain in relation to the distance

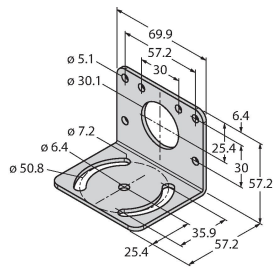
Technical data

Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	5
Core cross-section	0.5 mm ²
Ambient temperature	-10...+50 °C
Protection class	IP67
Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, red, flashing
Tests/approvals	
MTTF	28 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE

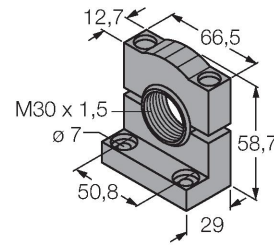


Accessories



SMB30MM
3027162


Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment

SMB30SC
3052521


Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable